**Additional file 5: Recommended East African FL-scale by core expert academic panel consisting of 39 items**

**In consideration of the available evidence five items thought to be not important by local experts during content validity, are considered important by the five team experts and thus recommended to be part of the final FL-scale.** These items include;

Items assessing efficacy, capability, and confidence related to eating practicalities and food preparations in difficult situations for example when on the road, under time pressures, and in food desert environments;

1. Ability to cook vegetables in at least three different ways,
2. Behaviour to pack vegetables when going to work
3. Behaviour to pack fruits when going to work
4. Ability to choose relevant nutrition information,
5. Ability to judge whether healthy eating information shared on various platforms can be trusted

Hence, the proposed East African FL-scale is composed on 39 items,

**Food literacy questionnaire – East African – deduced from Uganda**

**Food literacy questions**

These questions explore how you plan and prepare food for you and/or your family.

This is not a test! There are no wrong answers. Just think about how you usually do things.

**How often have you done the following actions in the last month?** Please tick or circle in the box that provides the best answer for each question.

**Questions about planning and management**

What is your opinion on the following?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assessment question** | | **Likert scale** | | | |
| 1 | What is your opinion on this statement?  ‘What I eat has an impact on my health and wellbeing’ | 1: Strongly Disagree | 2: Somewhat disagree | 3: Somewhat agree | 4: Strongly Agree |
| 2 | How often do you think about health when deciding on what to eat | 1: Never | 2: Rarely | 3: Sometimes | 4: Always |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 3 | Which of following food combinations do you consider as a typical balanced meal | 1:  Matooke,  Rice,  Chicken,  One banana | 2:  Matooke, Rice,  Beans,  One banana | 3:  Matooke,  Rice,  Greens (bugga),  One banana | 4:  Matooke,  Beans or chicken,  Greens (bugga),  One banana | 5:  Not sure |
| 4 | How often do you plan meals ahead of time? | 1: Never | 2: Rarely | | 3: Sometimes | 4: Always |
| 5 | Do you normally have a weekly menu? | 1: Never | 2: Rarely | | 3: Sometimes | 4: Always |
| 6 | How often do you plan the meals to include all food groups? | 1: Never | 2: Rarely | | 3: Sometimes | 4: Always |
| 7 | How easy is it for you to plan a meal including at least one food item from each of the food groups on a limited budget | 1: Very difficult | 2: Somehow difficult | | 3: Somehow easy | 4: Always easy |
| 8 | How often do you think about vegetables when deciding what to eat? | 1: Never | 2: Rarely | | 3: Sometimes | 4: Always |
| 9 | How often do you think about fruits when deciding what to eat? | 1: Never | 2: Rarely | | 3: Sometimes | 4: Always |

**Questions about selection**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | How often do you make a food shopping list before going to shop? | | 1: Never | 2: Rarely | 3: Sometimes | 4: Always | |
| 11 | How often do you purchase vegetables even if you have limited money? | | 1: Never | 2: Rarely | 3: Sometimes | 4: Always | |
| 12 | How often do you purchase fruits, even if you have limited money? | | 1: Never | 2: Rarely | 3: Sometimes | 4: Always | |
| 13 | On average how long do you stock up onleafy vegetables | 1: Do not stock (buy for immediate consumption) | 2: Daily | 3: two days | 4: three days | 5: four to five days | 6: weekly |
| 14 | On average how long do you stock up onother vegetables (carrots, cucumbers, avocado, tomatoes, eggplants etc) | 1: Do not stock (buy for immediate consumption) | 2: Daily | 3: two days | 4: three days | 5: four – five days | 6: weekly |
| 15 | On average how long do you stock up on fruits | 1: Do not stock (buy for immediate consumption) | 2: Daily | 3: two days | 4: three days | 5: four– five days | 6: weekly |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 16 | How do you normally store your fruits and vegetables (most used option) | | | | |
|  | 1: In a fridge | 2: On a floor in the house | 3: In a basket | 4: on the shelves | 5: Others specify  …………………………………………… |

**Questions about preparation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 17 | How often do you cook/eat meals prepared at home? | 1: Never | 2: Rarely | 3: Sometimes | 4: Always |
| 18 | How often do you prepare vegetables at each main meal (e.g., pasted vegetables? a side dish) | 1: Never | 2: Rarely | 3: Sometimes | 4: Always |
| 19 | What is your opinion on this statement?  ‘Vegetable preparation is too much work’ | 1: Strongly agree | 2: Somehow agree | 3.Somehow disagree | 4: Strongly disagree |
| 20 | How often do you try out new vegetable recipes? | 1: Never | 2: Rarely | 3: Sometimes | 4: Always |
| 21 | How confident do you feel about cooking a variety of healthy and tasty vegetables? | 1: Not confident | 2: Low | 3: Moderate | 4: High |
| 22 | How would you rate your ability to cook vegetables in at least three different ways? e.g. steaming, stir frying, pasting or in different dishes | 1: Not confident | 2: Low | 3: Moderate | 4: High |
| 23 | How confident are you that vegetables prepared at home don’t contain pesticide residues | 1: Not confident | 2: Low | 3: Moderate | 4: High |
| 24 | How confident are you that fruits prepared at home don’t contain pesticide residues | 1: Not confident | 2: Low | 3: Moderate | 4: High |

**Questions about eating behavior**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 25 | How many portions of vegetables is ministry of health and world health organisation is recommending people to eat? (a portion = 3 heaped table spoons or 1 handful) | 1: two or more portions a day | 2: one portion a day | 3: five portions a week | 4: three portions a week | 5: one portion a week | 6: Not sure |
| 26 | How many portions of fruits ministry of health and world health organisation is recommending people to eat? (1 portion of fruit is equal to 1 medium piece of banana, orange, mango or a slice of watermelon or pineapple) | 1: two or more portions a day | 2: one portion a day | 3: five portions a week | 4: three portions a week | 5: one portion a week | 6: Not sure |

**27: Please indicate how often you consume at least one portion of fruits**

|  |  |
| --- | --- |
| 1 portion of fruit is equal to 1 banana (bogoya or 2 ndinzi), orange, mango or a slice of watermelon or pineapple. | See the source image[A banana with a white background  Description automatically generated with low confidence](https://www.google.com/url?sa=i&url=https://commons.wikimedia.org/wiki/File:Banana_(1).jpg&psig=AOvVaw2bOuWa-e-PPx2PaLCTgvh6&ust=1590151697647000&source=images&cd=vfe&ved=0CAIQjRxqFwoTCIjgtfL-xOkCFQAAAAAdAAAAABAO)  What is a portion – 1 banana (bogoya), mango |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1: Once in a month | 2: one time a week | 3: two times a week | 4: three times a week | 5: four times a week | 6: five times a week | 7: six times a week | 8: one time a day | 9: two or more times a day |

**28: Please indicate how often you consume at least one portion of leafy vegetables**

|  |  |
| --- | --- |
| Four heaped tablespoons (one handful) of cooked green leafy veggies like cabbage, sukuma, nakati, dodo, spinach, boo, amalakwang, otigo, jobiyo, | A picture containing vegetable  Description automatically generated  What is a portion – 4 heaped table spoons or 1 handful |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1: Once in a month | 2: one time a week | 3: two times a week | 4: three times a week | 5: four times a week | 6: five times a week | 7: six times a week | 8: one time a day | 9: two or more times a day |

**29: Please indicate how often you consume at least one portion of vegetables other than leafy vegetables**

|  |  |
| --- | --- |
| Three heaped tablespoons (one handful) of veggies like sliced carrots, cucumber, green pepper, eggplant, mixed vegetables | A picture containing vegetable, different, plant, assortment  Description automatically generated  What is a portion – 3 heaped table spoons or 1 handful |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1: Once in a month | 2: one time a week | 3: two times a week | 4: three times a week | 5: four times a week | 6: five times a week | 7: six times a week | 8: one time a day | 9: two or more times a day |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 30 | How easy is it for you to eat fruits and vegetables when at work | 1: Very difficult | 2: Somewhat difficult | 3: Somewhat easy | 4: Always easy |
| 31 | How easy is it for you to eat fruits and vegetables when traveling | 1: Very difficult | 2: Somewhat difficult | 3: Somewhat easy | 4: Always easy |
| 32 | How easy is it for you to eat fruits and vegetables when you are busy | 1: Very difficult | 2: Somewhat difficult | 3: Somewhat easy | 4: Always easy |
| 33 | How often do you pack fruits when going to work? | 1: Never | 2: Rarely | 3: Sometimes | 4: Always |
| 34 | How often do you pack vegetables when going to work? | 1: Never | 2: Rarely | 3: Sometimes | 4: Always |
| 35 | How often do you eat vegetables as snacks (between meals)? e.g. avocado, carrots, tomatoes, cucumbers | 1: Never | 2: Rarely | 3: Sometimes | 4: Always |
| 36 | How often do you eat fruits as a snack (in between meals)? | 1: Never | 2: Rarely | 3: Sometimes | 4: Always |

**Questions on nutrition information**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 37 | When you have questions on what food to eat for better health, do you know where to ﬁnd this information? | 1: Never | 2: Rarely | 3: Sometimes | 4: Always |
| 38 | There is a lot of information available on healthy eating today. How well do you manage to choose the information relevant to you? | 1: Very difficult | 2: Somewhat difficult | 3: Somewhat easy | 4: Always easy |
| 39 | How easy is it for you to judge if healthy eating information shared on various platforms can be trusted? | 1: Very difficult | 2: Somewhat difficult | 3: Somewhat easy | 4: Always easy |

**Food literacy questionnaire – East African – deduced from Kenya validated**

**Food literacy questions**

These questions explore how you plan and prepare food for you and/or your family.

This is not a test! There are no wrong answers. Just think about how you usually do things.

**How often have you done the following actions in the last month?** Please tick or circle in the box that provides the best answer for each question.

What is your opinion on the following?

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Section 1. Planning and management** | | | | | | | | | | | |
| **Assessment question** | | **Response** | | | | | | | | | |
|  | What is your opinion on this statement?  ‘What I eat has an effect on my health’ | 1: Strongly Disagree | | 2: Somewhat disagree | | 3: Somewhat agree | | | 4: Strongly Agree | | |
|  | How often do you think about health when deciding on what to eat | 1: Never | | 2: Rarely | | 3: Sometimes | | | 4: Always | | |
|  | Which of following meals do you consider as healthy? | 1: Ugali, Rice, Chicken, One banana | | Ugali, Rice, Beans One banana | 3: Ugali, Rice, amaranth/ or managu, One banana | | | 4: Ugali, Beans or chicken, amaranth/ or managu One banana | | | 5: Not sure |
|  | How often do you plan meals ahead of time? | 1: Never | | 2: Rarely | | 3: Sometimes | | | 4: Always | | |
|  | How often do you plan for a weekly menu? | 1: Never | | 2: Rarely | | 3: Sometimes | | | 4: Always | | |
|  | How often do you plan the meals to include (1) Whole meal grains, (2) Vegetables, (3) Fruits, (4) Meats and poultry, fish, eggs, nuts and seeds, legumes (5) Milk, yoghurt, cheese or alternatives | 1: Never | | 2: Rarely | | 3: Sometimes | | | 4: Always | | |
|  | How easy is it for you to plan a meal including at least one food from each of the food groups when there is little money? | 1: Very difficult | | 2: Somehow difficult | | 3: Somehow easy | | | 4: Always easy | | |
|  | How often do you think about vegetables when deciding what to eat? | 1: Never | | 2: Rarely | | 3: Sometimes | | | 4: Always | | |
|  | How often do you think about fruits when deciding what to eat? | 1: Never | | 2: Rarely | | 3: Sometimes | | | 4: Always | | |
| **Section 2 Questions about Selection** | | | | | | | | | | | |
|  | How often do you make a food shopping list before going to shop? | 1: Never | | 2: Rarely | | 3: Sometimes | | | 4: Always | | |
|  | Do you buy vegetables or get them from the farm?  **Answer the question that is relevant to you**   1. If you **buy vegetables** how often do you purchase vegetables even if you have limited money? **OR** 2. If you get **vegetables from the farm** how often do you get the vegetables even if you there is limited production? | 1: Never | | 2: Rarely | | 3: Sometimes | | | 4: Always | | |
|  | Do you buy fruits or get them from the farm?  **Answer the question that is relevant to you**   1. If you **buy fruits** how often do you purchase them even if you have limited money?   **OR**   1. If you get **fruits from the farm** how often do you get them even if you there is limited production? | 1: Never | | 2: Rarely | | 3: Sometimes | | | 4: Always | | |
|  | On average how long do you store leafy vegetables like Sukuma-wiki, spinach, managu, sagaa after buying | 1: Do not store (buy and consume) | | 2: two days | 3: three days | | | 4: four to five days | | | 5: weekly |
|  | On average how long do you Store other vegetables (carrots, cucumbers, tomatoes, eggplants etc) after buying? | 1: Do not store (buy and consume) | | 2: two days | 3: three days | | | 4: four to five days | | | 5: weekly |
|  | On average how long do you store fruits after buying? | 1: Do not store (buy and consume) | | 2: two days | 3: three days | | | 4: four to five days | | | 5: weekly |
|  | How do you normally store your fruits and vegetables?  **You can have more than once response in this question** | 1: In a fridge | | 2: On a floor in the house | 3: In a basket | | | 4: on the shelves | | | 5: Others specify  \_\_\_\_\_\_\_\_\_\_ |
| **Section 3. Questions about preparation** | | | | | | | | | | | |
|  | How often do you cook meals at home? | 1: Never | | 2: Rarely | | | 3: Sometimes | | | 4: Always | |
|  | How often do you prepare vegetables at each main meal | 1: Never | | 2: Rarely | | | 3: Sometimes | | | 4: Always | |
|  | What is your opinion on this statement?  ‘Vegetable preparation is too much work?’ | 1: Strongly Disagree | | 2: Somewhat disagree | | | 3: Somewhat agree | | | 4: Strongly Agree | |
|  | How confident do you feel about cooking a variety of vegetables? | 1: Not confident | | 2: Lowly confident | | | 3: Moderately confident | | | 4: Highly confident | |
|  | How would you rate your ability to cook vegetables in at least three different ways? e.g. steaming, stir frying, pasting or in different dishes | 1: Not confident | | 2: Low | | | 3: Moderate | | | 4: High | |
|  | How often do you try out new vegetable recipes? | 1: Never | | 2: Rarely | | | 3: Sometimes | | | 4: Always | |
|  | How confident are you that vegetables prepared at home don’t contain farm chemicals or contaminants? | 1: Not confident | | 2: Lowly confident | | | 3: Moderately confident | | | 4: Highly confident | |
|  | How confident are you that fruits you use at home don’t contain farm chemicals or contaminants? | 1: Not confident | | 2: Lowly confident | | | 3: Moderately confident | | | 4: Highly confident | |
|  | How many servings of vegetables are recommended to be eaten per day?  1 serving refers to three heaped table spoons or 1 handful of vegetables | 1: two or more servings a day | 2: one serving a day | | 3: five servings a week | | | 4: three servings a week | | | 5: one serving a week |
|  | How many servings of fruits are recommended to be eaten per day?  1 serving of fruit refers to 1 medium piece of banana, orange, mango or a slice of watermelon or pineapple | 1: two or more servings a day | 2: one serving a day | | 3: five servings a week | | | 4: three servings a week | | | 5: one serving a week |
|  | How often do you eat at least one serving of fruits  1 serving of fruit refers to 1 banana , orange, mango or a slice of watermelon or pineapple  See the source image[A banana with a white background  Description automatically generated with low confidence](https://www.google.com/url?sa=i&url=https://commons.wikimedia.org/wiki/File:Banana_(1).jpg&psig=AOvVaw2bOuWa-e-PPx2PaLCTgvh6&ust=1590151697647000&source=images&cd=vfe&ved=0CAIQjRxqFwoTCIjgtfL-xOkCFQAAAAAdAAAAABAO) | 1: Once a week; a week | 2: two to three times | | 3: Four to five times a week | | | 4: Once daily | | | 5: two or more times a day |
|  | How often do you eat at least one serving of leafy vegetables?  One serving refers to four heaped tablespoons (or one handful) of cooked green leafy veggies like cabbage, sukuma-wiki, Sagaa, Managu, spinach | 1: Once a week; a week | 2: two to three times | | 3: Four to five times a week | | | 4: Once daily | | | 5: two or more times a day |
|  | How often do you consume at least one serving of vegetables besides the leafy vegetables?  One serving refers to 3 heaped table spoons or 1 handful of vegetables like sliced carrots, cucumber, green pepper, eggplant, mixed vegetables | 1: Once a week; a week | 2: two to three times | | 3: Four to five times a week | | | 4: Once daily | | | 5: two or more times a day |
|  | How easy is it for you to eat fruits and vegetables when at work? | 1: Very difficult | | 2: Somewhat difficult | | | 3: Somewhat easy | | | 4: Always easy | |
|  | How easy is it for you to eat fruits and vegetables when traveling? | 1: Very difficult | | 2: Somewhat difficult | | | 3: Somewhat easy | | | 4: Always easy | |
|  | How easy is it for you to eat fruits and vegetables when you are busy? | 1: Very difficult | | 2: Somewhat difficult | | | 3: Somewhat easy | | | 4: Always easy | |
|  | How often do you pack fruits when going to work? | 1: Never | | 2: Rarely | | | 3: Sometimes | | | 4: Always | |
|  | How often do you pack vegetables when going to work? | 1: Never | | 2: Rarely | | | 3: Sometimes | | | 4: Always | |
|  | How often do you eat vegetables as snacks like, carrots, tomatoes, cucumbers | 1: Never | | 2: Rarely | | | 3: Sometimes | | | 4: Always | |
|  | How often do you eat fruits as a snack? | 1: Never | | 2: Rarely | | | 3: Sometimes | | | 4: Always | |
| **Section 4. Question about Nutrition Information** | | | | | | | | | | | |
|  | How often do you find relevant answers when you have a question on what food to eat for better health? | 1: Never | | 2: Rarely | | | 3: Sometimes | | | 4: Always | |
|  | There is a lot of information available on healthy eating today. How well do you manage to choose the information relevant to you? | 1: Very difficult | | 2: Somewhat difficult | | | 3: Somewhat easy | | | 4: Always easy | |
|  | How easy is it for you to judge if healthy eating information shared on various platforms can be trusted? | 1: Very difficult | | 2: Somewhat difficult | | | 3: Somewhat easy | | | 4: Always easy | |